



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

25

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,589	06/27/2003	Torsten Niederdrank	P03,0228	8450
26574	7590	10/06/2004	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473				ENSEY, BRIAN
ART UNIT		PAPER NUMBER		
2643				

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/608,589	NIEDERDRANK, TORSTEN
	Examiner	Art Unit
	Brian Ensey	2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4-8,10 and 11 is/are rejected.
- 7) Claim(s) 3 and 9 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/24/03</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Objections

Claim 3 is objected to because of the following informalities: Line 2 has the word "at" duplicated twice. Appropriate correction is required.

Claim 8 is objected to because of the following informalities: Line 3 has the word "hearing" misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boesen U.S. Patent Application Publication No. 2003/0115068 in view of Killion et al. U.S. Patent No. 5,878,147.

Regarding claim 1, Boesen discloses a modular hearing aid device, comprising: an expansion module that comprises a module housing; and a hearing aid device module that comprises a hearing aid device module housing and at least one microphone; wherein the expansion module housing supplements the hearing aid device module housing to form a housing of the hearing aid device having a uniform effect, the expansion module and the hearing aid device module being detachably connectable (See Figs. 1 and 2 and paragraph 0022 and

0023). Boesen does not expressly disclose the expansion module is a microphone module that comprises a microphone module housing and at least one microphone. However, Boesen teaches the expansion port is used to provide added features, functionalities, and/or memory (See paragraph 0022) and Boesen further teaches a plurality of microphones including a bone conduction microphone (82) (See paragraph 0030). Further, Killion teaches a modular directional microphone assembly for use in an in the ear hearing aid (See Figs. 1-4 and col. 6, lines 32-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide an additional microphone assembly in the expansion slot of Boesen for improved directional reception (See Boesen paragraph 0011).

Regarding claim 5, Boesen does not expressly disclose the microphone of the microphone module is fashioned as directional microphone. However, Killion teaches a modular directional microphone (See Figs. 1-4 and col. 6, lines 32-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a directional microphone assembly in the expansion slot of Boesen for improved directional reception (See Boesen paragraph 0011).

Regarding claims 6 and 7, Boesen does not expressly disclose the microphone module comprises at least two microphones to form a directional microphone system. Multiple microphone modules in a single directional microphone are well known in the art and Killion teaches a modular directional microphone comprising two microphone modules forming a directional microphone system (See Fig. 9 and col. 8, line 61 to col. 9, line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide two

microphones in a directional microphone assembly for improved directional response and reliability.

Regarding claim 8, Boesen does not expressly disclose the microphone module is configured to be simultaneously employed with the microphone of the hearing aid device module. However, Boesen teaches simultaneous use of multiple microphones for improved directional receiving (See Figs. 1 and 2 and paragraph 0011). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the installed microphone module and hearing aid microphone for improved directional receiving (See paragraph 0011).

Regarding claim 10, Boesen does not expressly disclose the hearing aid device module is configured to accept various microphone modules that respectively comprise different acoustic and/or electronic properties. However, Boesen teaches the expansion port is used to provide added features, functionalities, and/or memory (See paragraph 0022) and Boesen further teaches a plurality of microphones including a bone conduction microphone (82) (See paragraph 0030). It would have been obvious to one of ordinary skill in the art at the time of the invention that the expansion port utilizes microphone modules with different acoustic and/or electronic properties.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boesen in view of Killion as applied to claim 1 above, and further in view of Klope et al. U.S. Patent Application Publication No.2003/0070868.

Regarding claims 2 and 4, Boesen does not expressly disclose an attenuation-damped connection comprising a damping material for connecting the microphone module and the hearing aid device module. However, Klope disclose a an attenuation damping material for an attenuation-damped connection of a microphone in a hearing aid (See Fig. 3 and paragraph

0023). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a damping layer to prevent unwanted vibration (See paragraph 0001).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boesen in view of Killion as applied to claim 1 above, and further in view of Boesen U.S. Patent No. 6,718,043.

Regarding claim 11, Boesen does not expressly disclose the microphone module comprises an electronic interface to the hearing aid device module. However, Boesen ('043) teaches the expansion module comprises an electronic interface to the hearing aid device module (See Fig. 3 and col. 5, line 65 to col. 6, line 3). It would have been obvious to one of ordinary skill in the art at the time of the invention that the electronic interface of the expansion module is utilized for a consistent electrical connection.

Allowable Subject Matter

Claims 3 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Ensey whose telephone number is 703-305-7363. The examiner can normally be reached on Mon-Fri: 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

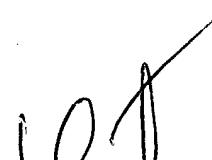
Or faxed to:

(703) 872-9306, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to: 220 South 20th Street, Crystal Plaza Two,
Lobby, Room 1B03, Arlington, VA 22202

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKE
September 30, 2004



CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600